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WIRELESS CONSUMERS ALLIANCE INC.

December 20, 1999

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Ms. Magalie Roman Salas
Secretary
Federal Communications Commission
445 12th Street, SW
Washington, D.C. 20554

Re: WT Docket 99-328, *Ex Parte*

Dear Ms. Salas:

On December 10, 1999, Nokia, Inc. ("Nokia") filed reply comments in the above referenced docket which represent a substantial change of position. Nokia does not now challenge our well documented conclusion that their so called "*enhanced* 911 call completion methodology for multi-mode phone" is descriptive of nothing more than the present method of Nokia's handset operation. But rather, Nokia artfully shifts ground in its reply and argues that "the very nub of Nokia's request -- [is] to allow [its] *existing* [handset] capabilities to be used" when 9-1-1 is dialed. These existing capabilities are but two -- (1) override of the negative SID,[1] and (2) use of the preferred roaming list to first seek systems with which the home carrier has a roaming agreement.[2] These features (which have long been present in almost all wireless handsets) are to be used in lieu of any of the three 911 Call Processing methods approved by the Commission. According to Nokia, the benefits to the public are as follows:

(1) Nokia says "[w]e are asking to be permitted to implement [the] ***existing override capability***"[3] of Nokia handsets to disregard Negative SIDs when 9-1-1 is dialed.

The Commission's rules *require* that the Negative SID be *overridden when* the handset is in the *analog mode* and *9-1-1 is dialed*.[4] But Nokia says that the TIA/EIA 683-

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[1] Negative SID is programmed by carriers to prevent their customers from accessing other systems for competitive or economic reasons.

[2] The carriers on the preferred list do not necessarily have the customer information which is resident in the home carrier's system. It was the availability of such information that underlies the Commission's approval of Automatic A/B Roaming - IR.

[3] Page 3.

[4] Section 22.921

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A standard makes such override an *option* when the handset is in the *digital mode*. Without regard to the fact that the controlling patent requires such override in *any mode*, there is nothing in the Commission's rules that requires Nokia to block 9-1-1 calls to digital systems by use of the Negative SID.

(2) Nokia says that it wants permission to continue to use its ***existing preferred roaming table*** to search for compatible systems because once the handset is in the analog mode, the Commission's rules prevent the handset from accessing a digital system until after attempts are made to complete the call on the available cellular analog systems.[5]

In its application, Nokia said that use of the preferred roaming table would increase the number of calls that would be completed. because more systems would be accessed, i.e., both digital and analog systems. We pointed out that this is not true because Nokia phones *only* operate can operate on digital systems which use the same digital transmission methods.

Nokia now takes a new tack by saying that there could be a "*substantial delay*" in call completion *IF both analog cellular systems were "too weak" AND there was an available digital system to handle the call.*[6] Nokia posits a hypothetical in which a multimode handset selects preferred cellular analog system A and is unable to complete the 9-1-1 call and, under the Commission's rules, must switch to cellular analog system B which also cannot complete the call. Nokia asks us to assume that the B side cellular digital system is "superior" to its analog system and could complete the call.[7]

There is a substantial probability in the above hypothetical that the caller using an ***existing*** Nokia phone will be *locked in* on the analog cellular A system and the call would never be completed. Furthermore, under this fictional fact scenario, it is highly probable that the non-preferred cellular system is on the handset's negative SID list -- meaning that the Nokia handset would unsuccessfully search for 12 to 15 out of the area systems on the preferred roaming list before moving to scan the systems in the area where the handset was located -- resulting in substantial delay in connecting the 9-1-1 call. Perhaps in recognition of this pernicious problem with its existing handsets, Nokia argues that: (a) digital systems are "superior" to analog systems, (b) newly authorized PCS systems are coming on line which will have to duplicate one of the other existing digital formats, and, (c) digital systems are less crowded than analog systems. To these arguments we reply:

(a) The assumption that digital systems are superior to analog systems does not

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[5] Reply, p. 4 (emphasis added).

[6] *Id.*, p. 7-8.

[7] *Id.*

wash. Cellular carriers have overlaid their digital systems on their analog networks in densely populated urban areas to increase their capacity -- not improve their coverage. The minimum signal to noise interference level for reliable conversation in both the analog and CDMA modes is 17db. From 14db to 17db the analog signal will become noisy but usable. The CDMA digital signal will degrade even further by dropping bits so that the conversation will be broken with parts of words or words missing.[8] In the case of TDMA, the minimum usable signal to noise level is 21db, meaning that in the same coverage area, analog will be superior.

(b) The assumption that newly authorized PCS systems will provide wireless telephone service is premature and problematic. It is not at all clear that the new PCS systems, with their smaller bandwidth, will be used by wireless phones. It rather appears that such systems will be used by personal digital assistants, such as the Palm Pilot, and for wireless local loops.

(c) Nokia makes the contradictory argument that digital systems are less crowded than analog but says that digital multimode handsets will out sell analog handsets by a ratio of more than three to one during the next three years. Thus, if anything, it appears that digital systems will become more congested.

Nokia also says that all of the other commenting parties supported its proposal.[9] But NENA states "the exact timing and sequencing of calls [under the Nokia proposal] needs *further study in a technical setting*."[10] Even CTIA points out that during Nokia's "process, the handset will provide the caller with feedback regarding the status of the 9-1-1 call processing until the call is completed or *the battery is drained*."[11] We agree with NENA that it is time to open the dialog and study of the processing of 9-1-1 calls over digital systems. Motorola has recently announced a breakthrough in developing a new multi platform chip that will permit handsets to operate on incompatible technologies and use different frequency bands. These chips are expected to be available on the market in a year or two and it is appropriate for the Commission to encourage the parties to begin a discussion of improved 9-1-1 call completion in the light of this new technology.

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[8] The bit error rate may degrade to loss of as much as 60% of the data before the call is dropped.

[9] Reply, p. 1.

[10] NENA Comments, p. 2. Digital systems have their own type of lock-in when the conversation is so broken as to be unintelligible, causing the calling party to hang up, re-dial and gets the same system with the same problem.

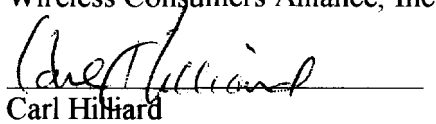
[11] CTIA Comments, p. 4 (emphasis added).

Like NENA, we are willing to join in this effort.

In sum, Nokia initially served up its proposal to the Commission on the pretext that it was "new," "improved" and "enhanced." When the mask was pulled down, Nokia had to admit that there was nothing new, enhanced or improved -- just its existing system in a gossamer wrap. Its Huff and Puff reply is laced with the usual "our critic does not understand," "public interest" and "consumer rights" rhetoric in an effort to cover over the complete lack of substance in its application. Nokia's tortured and tortuous arguments are an affront to the Commission and to the parties who worked so hard to solve the issues concerning 911 call completion methods. ***The existing Nokia multimode phones do not solve <u>any</u> of the problems which were well documented and considered by the Commission in Docket 94-102 and its petition to do nothing to its handsets must be soundly rejected.***

Respectfully submitted,

Wireless Consumers Alliance, Inc.



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cc: **<u>Commission</u>**
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Mr. Daniel Grosh
Mr. Marty Liebman

Mr. David Siddall, Nokia
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Mr. Michael Altschul, CTIA